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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,979	04/16/2004	Joseph Dominic Domine	2003B050A	2215

7590 09/28/2005
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EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,979

Applicant(s)

DOMINE, JOSEPH DOMINIC

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-208 is/are pending in the application.
- 4a) Of the above claim(s) 135-169 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-134 and 170-208 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 1-134 and 170-208, in the reply filed on 7/15/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 135-169 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/15/2005.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 2-3, 6, 9-10, 16-17, 19-21, 24, 44-46, 48, 51-52, 58-59, 61-63, 66, 90-92, 94, 97, 104-105, 107-109, 112, 172-174, 176, 179-180, 186-187, 189-191, and 194 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Art Unit: 1711

The claims recite the limitation "R' is a bond or a C₁ to C₁₀ hydrocarbon" or "R' is independently a bond C₁ to C₁₀ hydrocarbon". The concept of a bond as an alternative of a hydrocarbon in these structures is scientifically impossible. The concept of a bond in between 2 single bonds between the C and N atoms or between the C and C atoms as presented in the presently claimed structures is scientifically impossible. And the specification does not provide any adequate explanation or evidence to which one could rely on in order to decipher the correct structures or compounds. The determination of what may be usable in this capacity would require the undue burden of experimentation on the part of the artisan.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-3, 6, 9-10, 16-17, 19-21, 24, 44-46, 48, 51-52, 58-59, 61-63, 66, 90-92, 94, 97, 104-105, 107-109, 112, 172-174, 176, 179-180, 186-187, 189-191, and 194 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite due to the use of "R' is a bond or a C₁ to C₁₀ hydrocarbon" or "R' is independently a bond C₁ to C₁₀ hydrocarbon". It is unclear to the examiner what kind of a bond that is. Clarification of R' is required.

Remarks

7. The examiner is interpreting R' as a hydrocarbon having n C atoms, where n = 0 to 10.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-134 and 170-208 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25, 47-60 of copending Application No. 10/469,072. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the copending application overlaps that of the instant claims, rendering them obvious over each other.

The claims of the copending application recite all of the limitations as recited in the instant claims 1, 43, 88, and 170. However, claims 1, 9, 17, and 40 of the copending application recite the laminate to be shaped, whereas the instant claims recite the laminate to be coextruded. Thus, the scope of the claims of the copending application overlaps that of the instant claims, rendering them obvious over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-134 and 170-208 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-42, 64-81 of

Art Unit: 1711

compending Application No. 10/472,871. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the compending application is narrower than that of the instant claims, rendering them obvious over each other.

The claims of the compending application recite all of the limitations as recited in the instant claims 1, 43, 88, and 170. Furthermore, claims 1, 14, 27, and 64 of the compending application disclose the tie layer comprising one or more layers of material selected from acid polymers, soft ionomers, thermoplastics, or blends thereof. Thus, the scope of the claims of the compending application is narrower than that of the instant claims, rendering them obvious over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 14-43, 56-89, 102-134, 170-172, and 184-208 are rejected under 35

U.S.C. 102(b) as being anticipated by Domine et al. (WO 02/078953). The reference is cited in the IDS filed 4/16/2004.

Domine discloses a coextruded laminate structure, comprising at least one layer of an ionomers resin, a tie layer, a backing layer, and a substrate (see abstract, page 5, last paragraph;

Art Unit: 1711

Figs. 3-4). The tie layer comprises alpha-olefinic polymers and an acid polymer, such as methyl acrylic (see page 14, 2nd paragraph; page 15, last paragraph).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 2-13, 44-55, 90-101, and 172-183 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domine as applied to claims 1, 43, 88, and 170 above, and further in view of Iovine et al. (US Pat. 4,948,822).

Domine is as set forth in claims 1, 43, 88, and 170 above and incorporated herein.

Domine discloses the tie layer comprising alpha-olefinic polymers and an acid polymer, such as methyl acrylic (see page 14, 2nd paragraph; page 15, last paragraph). However, the reference does not teach the polymer including an amine-containing monomer or an epoxy-containing monomer.

Iovine discloses a laminating adhesive, comprising an acrylic acid alkyl or hydroxyalkyl ester monomer, glycidyl methacrylate, or an amine-containing copolymerizable comonomer (see paragraph crossing col. 2 & 3). Iovine further teaches that the adhesive exhibits bond strength, and increased water and humidity resistance (see col. 2, ln. 16-19).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the adhesive comprising a copolymer of an acrylic acid

Art Unit: 1711

and glycidyl methacrylate or an amine-containing comonomer, as taught by Iovine, in the laminate of Domine, for the purpose of enhancing bond strength, and water and humidity resistance. It has also been within the skill in the art that glycidyl (meth)acrylate and amines are conventional hardeners commonly used in the art. Thus, copolymer having glycidyl and/or amine units would also have higher abrasion resistance.

15. Claims 5-13, 28-35, 47-56, 70-77, 93-101, 116-123, 175-183, 198-205 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domine as applied to claims 1, 43, 88, and 170 above, and further in view of Kojima et al. (US Pat. 4,654,255).

Domine is as set forth in claims 1, 43, 88, and 170 above and incorporated herein.

Domine discloses the tie layer comprising alpha-olefinic polymers and an acid polymer, such as methyl acrylic (see page 14, 2nd paragraph; page 15, last paragraph). However, the reference does not teach the polymer including an epoxy-containing monomer.

Kojima discloses an adhesive resin for improving interlaminar bond between layers in laminates, the adhesive comprising an epoxy-containing olefin polymer; wherein the epoxy-containing monomers are the same as recited in the instant claims such as glycidyl acrylate (see abstract; col. 2, ln. 34-45; col. 3, ln. 28-59). Kojima further teaches the adhesive comprising a diacid, such as maleic acid (see col. 2, ln. 46-60).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the adhesive comprising a copolymer of an olefin and glycidyl methacrylate, as taught by Kojima, in the adhesive of Domine, for the purpose of enhancing interlaminar bond strength between layers in laminates.

Art Unit: 1711

Contact Information

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt
September 23, 2005

Thao Tran

**THAO T. TRAN
PATENT EXAMINER**